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| APPLICATION NO.                             | FILING DATE | FILING DATE FIRST NAMED INVENTOR |   |              | ATTORNEY DOCKET NO. |
|---|-------------|----------------------------------|---|--------------|---------------------|
| 09/722,420                                  | 11/28/00    | STROMBERG                        |   | C :          | 10-1322             |
| _   |             | TMEG (0005                       | 7 |              | EXAMINER            |
| NIXON & VAND                                | ERHVE P.C.  | IM52/0926                        |   | ALVO. M      |                     |
| STH FLOOR                                   | EIGHE 1 101 |                                  |   | ART UNIT     | PAPER NUMBER        |
| 1100 NORTH GLEBE ROAD<br>ARLINGTON VA 22201 |             |                                  |   | 1731         | 4                   |
|   |             |                                  |   | DATE MAILED: |                     |
|   |             |                                  |   |              | 09/26/01            |

Please find below and/or attached an Office communication concerning this application or proceeding.

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PTO-90C (Rev. 2/95) 1. File Copy

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|--|---|--|--|--|--|--|--|
|  | Application No.   | Applicant(s)   |  |  |  |  |  |
|  | 09/722,420  | STROMBERG, C. BERTIL   |  |  |  |  |  |
| Office Action Summary  | Examiner  | Art Unit   |  |  |  |  |  |
|  | Steve Alvo  | 1731   |  |  |  |  |  |
| The MAILING DATE of this communication appe<br>Period for Reply  | ears n the cover sheet wit  | h the correspondence address   |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPL' THE MAILING DATE OF THIS COMMUNICATION.  Extensions of time may be available under the provisions of 3° CFR 1.1 after S1/8 (6) MONTHS from the mailing date of this communication. If the period for reply specified above, the maximum statutory period v. Failure to reply within the set or extended period for reply within the set or extended period for reply within the set or extended period for reply with on the set of the | 36 (a). In no event, however, may a<br>y within the statutory minimum of thin<br>will apply and will expire SIX (6) MON<br>, cause the application to become Al | reply be timely filed  ly (30) days will be considered timely.  ITHS from the mailing date of this communication.  JANDONED (35 U.S.C. § 133). |  |  |  |  |  |
| 1) Responsive to communication(s) filed on   |   |  |  |  |  |  |  |
| 2a) ☐ This action is <b>FINAL</b> . 2b) ☑ Th   | This action is <b>FINAL</b> . 2b) This action is non-final.   |  |  |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.   |   |  |  |  |  |  |  |
| Disposition of Claims  |   |  |  |  |  |  |  |
| 4) Claim(s) 1-25 is/are pending in the application.  |   |  |  |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.   |   |  |  |  |  |  |  |
| 5) Claim(s) is/are allowed.  |   |  |  |  |  |  |  |
| 6)⊠ Claim(s) <u>1-25</u> is/are rejected.  |   |  |  |  |  |  |  |
| 7) Claim(s) is/are objected to.  |   |  |  |  |  |  |  |
| 8) Claims are subject to restriction and/or election requirement.  |   |  |  |  |  |  |  |
| Application Papers   |   |  |  |  |  |  |  |
| 9) The specification is objected to by the Examiner.   |   |  |  |  |  |  |  |
| 10) The drawing(s) filed on is/are objected to by the Examiner.  |   |  |  |  |  |  |  |
| 11) The proposed drawing correction filed on is: a) approved b) disapproved.   |   |  |  |  |  |  |  |
| 12) The oath or declaration is objected to by the Examiner.  |   |  |  |  |  |  |  |
| Priority under 35 U.S.C. § 119   |   |  |  |  |  |  |  |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  |   |  |  |  |  |  |  |
| a)   |   |  |  |  |  |  |  |
| 1. Certified copies of the priority documents have been received.  |   |  |  |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No   |   |  |  |  |  |  |  |
| <ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>  |   |  |  |  |  |  |  |
| 14)⊠ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  |   |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |
| Attachment(s)  |   |  |  |  |  |  |  |
| 15) Notice of References Cited (PTO-892)   |   | Summary (PTO-413) Paper No(s)  |  |  |  |  |  |
| 16) Notice of Draftsperson's Patent Drawing Review (PTO-948) 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 20) Other:   |   |  |  |  |  |  |  |

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 25 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 92/03609.

The process steps of producing the product can not be given probative weight in a product claim. WO 92/03609 teaches on pages 20 Example 20, bleaching a pulp with a DZED bleaching sequence to produce a pulp having a viscosity greater than 21 cp, e.g. 25.2 and having as brightness of 88.0 % GE. Applicant has not shown the claimed 89 ISO to be brighter than the 88.0 of WO 92/03609. It would have been obvious to the artisan to adjust the parameters to obtain a brighter pulp.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 92/03609 in view of NONNI.

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The process steps of producing the product can not be given probative weight in a product claim. WO 92/03609 teaches on pages 20 Example 20, bleaching a pulp with a DZED bleaching sequence to produce a pulp having a viscosity greater than 21 cp, e.g. 25.2 and having as brightness of 88.0 % GE. If necessary, NONNI teaches that adding oxygen and either hypochlorite or peroxide to an extraction (E) stage without incurring viscosity losses. If the claimed pulp is brighter than the pulp of WO 92/03609, then it would have been obvious to use the oxygen and either hypochlorite or peroxide of NONNI in the extraction stage of WO 92/03609 to increase the brightness without lowering the viscosity, e.g. using the sequence DZEopD or DZEohD.

Claims 1-3, 7, 8, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 93/15624.

WO 93/15624 teaches a DZE bleaching sequence without washing between stages (page 19, lines 9-13) and further teaches that the sequence can be repeated (DZEDZE) or followed with a DEo (DZEDEo) or DEp (DZEDEp) bleach sequence (page 24 lines 18-27). Obviously no washing is performed between D and Z as WO 93/15624 teaches carrying out the extraction  $\frac{93}{1562} = \frac{1}{2}$  without an intervening wash. Claim 2 is rejected as WO 93/03609 teaches that the p. If  $\frac{2}{15} = \frac{1}{2}$  pH in the extraction is 10.5 or higher. See page 3 for bleaching chemical pulp. Claims 13 and 7 are rejected as page 24 of WO 93/15624 teaches other D and Z stages could be used.. Claim 8, see page 19, lines 22-24.

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Claims 4-6, 9-12 and 15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 93/15624 as applied to claim 1 above, and further in view of ADMITTED PRIOR ART (specification, page 19-25).

WO 93/15624 teaches treating chemical pulp. The ADMITTED PRIOR ART teaches that soda/anthraquinone is a well known chemical pulping process. It would have been obvious to one of ordinary skill in the art that the pulp of WO 93/15624 could have been prepared using any well known process, such as the soda/AQ process of the ADMITTED PRIOR ART.

Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 93/15624 in view of ADMITTED PRIOR ART as applied to claim 4 above, and further in view of SWEDISH APPLICATION 81020828 or NIMMERFROH et al.

SWEDISH APPLICATION 81020828 or NIMMERFROH et al teach using an N stage in combination with an alkaline stage lowers the kappa number and the water requirements, see SWEDISH APPLICATION 81020828 (16) or NIMMERFROH et al, translation, page 6, line 7. It would have been obvious to use an N-stage with the extraction stage of WO 93/15624 to lower the water requirements and the final kappa number as taught by SWEDISH APPLICATION 81020828 or NIMMERFROH et al.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention

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The term "that includes anthraquinone, polysulphide or their equivalents or derivatives" is vague. It is not clear if both are included or either one. Also it is not clear what is equivalent to anthraquinone and/or polysulphide. Also it is not clear what the "derivatives" are of.

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Any inquiry concerning this communication or earlier communications from the **primary** examiner should be directed to Steve Alvo whose telephone number is (703) 308-2048. The Examiner can normally be reached on Monday - Friday from 6:00 AM - 2:30 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Stanley Silverman, can be reached on 703-308-3837.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Group receptionist** whose telephone number is (703) 308-0661.

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Carolyn E. Johnson, Marshall Gaddis, Bessie Bowie, Lucy Jones

MSA September 21, 2001 STEVE ALVO
PRIMARY EXAMINER
ART UNIT 1731